In The Claims:

Claims 1-13. (Cancelled).

14. (Previously Presented) A system for effectively managing operating power for an electronic device, comprising:

a battery pack coupled to said electronic device for supplying said operating power to said electronic device; and

a battery controller configured to alternately manage said battery pack in one of a single-cell implementation and a dual-cell implementation, said battery controller including a charge pump to provide an internal controller power supply for operating said battery controller in said single-cell implementation, said battery pack being implemented in said single-cell implementation, said battery controller coordinating a startup procedure for said battery pack during which a battery charger is connected to said battery pack in a discharged state, said battery controller responsively closing a charge switch that is coupled between said battery charger and a battery cell of said battery pack, said charge switch passing a charger voltage from said battery charger to a charger input of said charge pump, said charge pump responsively generating a charge pump output voltage at a pre-determined voltage level to a charger regulator that filters said charge pump output voltage, said charger regulator then generating said internal controller power supply so that a CPU of said battery controller may begin executing battery controller instructions to control operations of said battery pack.

15. (Original) The system of claim 14 wherein said CPU closes a discharge switch in said battery pack to begin charging said battery cell, said CPU also utilizing a CPSEL line to switch from said charger input of said charge pump to a battery input of said charge pump, said charge pump responsively generating said charge pump output voltage at said pre-determined voltage level to said charger regulator, said charger regulator filtering said charge pump output voltage to provide said internal controller power supply for said battery controller, said charge pump thus compensating for a reduced battery output voltage resulting from said single-cell implementation of said battery pack.

16. (Original) The system of claim 15 wherein said battery pack utilizes said battery charger under control of said battery controller to charge said battery cell, said battery charger being subsequently disconnected for more a unrestricted use of said electronic device, said electronic device utilizing said battery pack to supply said operating power.

17. (Cancelled).

18. (Previously Presented) A system for effectively managing operating power for an electronic device, comprising:

a battery pack coupled to said electronic device for supplying said operating power to said electronic device; and

a battery controller configured to alternately manage said battery pack in one of a single-cell implementation and a dual-cell implementation, said battery controller including a charge pump to provide an internal controller power supply for operating said battery controller in said single-cell implementation, an analog-to-digital converter module of said battery controller monitoring a battery voltage of said battery pack as it discharges while supplying said operating power to said electronic device, a CPU of said battery controller controlling a shutdown procedure for said battery pack when a pre-determined discharged voltage level is sensed by said analog-to-digital converter module, said CPU responsively opening a discharge switch in said battery pack, said CPU toggling a CPSEL line to switch from a battery voltage of said battery pack at a battery input of said charge pump to a charger voltage from said battery charger at a charger input of said charge pump to thereby generate said internal controller power supply, said internal controller power supply responsively descending below a reset threshold if said battery charger is not connected to said battery pack, said battery pack then entering a shutdown state until said battery charger is connected to said battery pack and a startup procedure is performed by said battery controller to charge said battery pack.

19. (Cancelled).

20. (Previously Presented). A system for effectively managing operating power for an electronic device, comprising:

a battery pack coupled to said electronic device for supplying said operating power to said electronic device; and

a battery controller configured to alternately manage said battery pack in one of a single-cell implementation and a dual-cell implementation, said battery controller including a charge pump to provide an internal controller power supply for operating said battery controller in said single-cell implementation, said battery controller including a UART device that is implemented to communicate with said electronic device via a single transmit/receive pin on an integrated circuit device that contains said battery controller, said UART thus supporting a single-pin UART interface to conserve available connection pins on said integrated circuit device of said battery controller, said UART device receiving a timebase signal from a precision instruction oscillator that is implemented on an integrated circuit that includes said battery controller, said instruction oscillator accurately generating a UART clock signal to said UART for synchronizing UART operations.

Claims 21-33. (Cancelled).

34. (Previously Presented). A method for effectively managing operating power for an electronic device, comprising the steps of:

supplying said operating power for said electronic device from a battery pack coupled to said electronic device; and

managing said battery pack alternately in one of a single-cell implementation and a dual-cell implementation by utilizing a battery controller that includes a charge pump to provide an internal controller power supply for operating said battery controller in said single-cell implementation, said battery pack being implemented in said single-cell implementation, said battery controller coordinating a startup procedure for said battery pack during which a battery charger is connected to said battery pack in a discharged state, said battery controller responsively closing a charge switch that is coupled between said battery charger and a battery cell of said battery pack, said charge switch passing a charger voltage from said battery charger to a charger input of said charge pump, said charge pump responsively generating a charge pump output voltage at a pre-determined voltage level to a charger regulator that filters said charge pump output voltage, said charger regulator then generating said internal controller power supply so that a CPU of said battery controller may begin executing battery controller instructions to control operations of said battery pack.

35. (Original) The method of claim 34 wherein said CPU closes a discharge switch in said battery pack to begin charging said battery cell, said CPU also utilizing a CPSEL line to switch from said charger input of said charge pump to a battery input of said charge pump, said charge pump responsively generating said charge pump output voltage at said pre-determined voltage level to said charger regulator, said charger regulator filtering said charge pump output voltage to provide said internal controller power supply for said battery controller, said charge pump thus compensating for a reduced battery output voltage resulting from said single-cell implementation of said battery pack.

36. (Original) The method of claim 35 wherein said battery pack utilizes said battery charger under control of said battery controller to charge said battery cell, said battery charger being subsequently disconnected for more a unrestricted use of said electronic device, said electronic device utilizing said battery pack to supply said operating power.

37. (Cancelled).

38. (Previously Presented). A method for effectively managing operating power for an electronic device, comprising the steps of:

supplying said operating power for said electronic device from a battery pack coupled to said electronic device; and

managing said battery pack alternately in one of a single-cell implementation and a dual-cell implementation by utilizing a battery controller that includes a charge pump to provide an internal controller power supply for operating said battery controller in said single-cell implementation, an analog-to-digital converter module of said battery controller monitoring a battery voltage of said battery pack as it discharges while supplying said operating power to said electronic device, a CPU of said battery controller controlling a shutdown procedure for said battery pack when a pre-determined discharged voltage level is sensed by said analog-to-digital converter module, said CPU responsively opening a discharge switch in said battery pack, said CPU toggling a CPSEL line to switch from a battery voltage of said battery pack at a battery input of said charge pump to a charger voltage from said battery charger at a charger input of said charge pump to thereby generate said internal controller power supply, said internal controller power supply responsively descending below a reset threshold if said battery charger is not connected to said battery pack, said battery pack then entering a shutdown state until said battery charger is connected to said battery pack and a startup procedure is performed by said battery controller to charge said battery pack.

39. (Cancelled).

40. (Previously Presented). A method for effectively managing operating power for an electronic device, comprising the steps of:

supplying said operating power for said electronic device from a battery pack coupled to said electronic device; and

managing said battery pack alternately in one of a single-cell implementation and a dual-cell implementation by utilizing a battery controller that includes a charge pump to provide an internal controller power supply for operating said battery controller in said single-cell implementation, said battery controller including a UART device that is implemented to communicate with said electronic device via a single transmit/receive pin on an integrated circuit device that contains said battery controller, said UART thus supporting a single-pin UART interface to conserve available connection pins on said integrated circuit device of said battery controller, said UART device receiving a timebase signal from a precision instruction oscillator that is implemented on an integrated circuit that includes said battery controller, said instruction oscillator accurately generating a UART clock signal to said UART for synchronizing UART operations.

Claims 41-42. (Cancelled).